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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/763,170	01/26/2004	Takashi Okazaki	040019	6710

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EXAMINER	
CHEN, VIVIAN	
ART UNIT	**PAPER NUMBER**
1773	

DATE MAILED: 11/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/763,170	OKAZAKI ET AL.	
	Examiner	Art Unit	
	Vivian Chen	1773	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06 September 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1 and 5-9* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1 and 5-9* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *6-2005*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 2-4 have been cancelled by Applicant.

Claim Rejections - 35 USC § 103

2. Claims 1, 5-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over MAJUMDAR ET AL (US 6,514,660) in view of AYLWARD ET AL (US 6,017,686) and ASAKA ET AL (US 5,437,913) and SHIKANO ET AL (US 2003/0104180) and SAKAMOTO ET AL (US 4,880,703).

MAJUMDAR ET AL discloses a sheet material suitable for electrophotographic applications, wherein the sheet comprises a base sheet material and an image-receiving coating, wherein the base sheet material may be a coated paper substrate (e.g., those disclosed in U.S. Patent No. 6,017,686) wherein the coating. (line 50, col. 10 to line 68, col. 11) However, the reference does not explicitly disclose the composition of the image-receiving layer or sheet stiffness.

AYLWARD ET AL discloses that it is well known in the art to use multilayered laminates comprising a pigmented polyolefin layer on a paper base layer as substrates for image receptor sheets, wherein the paper base has a typical thickness of 95 microns or less (line 25-50, col. 4; line 59, col. 3 to line 25, col. 4) in order to obtain useful image-bearing materials.

ASAKA ET AL discloses that it is well known in the art to apply image-receiving coatings containing conductive particles (e.g., antimony-doped tin oxide) to substrates to obtain imaging materials having a typical surface resistivities of 10^9 to $10^{13}\ \Omega$ in order to facilitate the

transfer and adhesion of toner and improve electrophotographic image quality. (line 10-25, col. 7; line 21-35, col. 9)

SHIKANO ET AL discloses that it is well known in the art to use sheets with a Clark stiffness of 15-500 in electrophotographic imaging applications (paragraph 0087-0089) in order to facilitate sheet transport during the imaging process and avoid jamming.

SAKAMOTO ET AL discloses that it is well known in the art to use highly conductive acicular titanium dioxide particles coated with antimony-doped tin oxide as conductive particles for electrophotographic copying paper, wherein the particles having a typical length of 1-10 microns and an aspect ratio of 3 or more. (entire document, especially line 32-68, col. 2; line 39-44, col. 3)

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to apply known image-receiving coatings as disclosed in ASAKA ET AL to the sheets of MAJUMDAR ET AL in order to produce electrophotographic materials with superior image quality. It also would have been obvious to select the sheet stiffness as disclosed in SHIKANO ET AL in order to facilitate sheet handling and transport during the electrophotographic imaging process. One of ordinary skill in the art would have incorporated effective amounts of known conductive particles as disclosed in SAKAMOTO ET AL in the image-receiving coatings as disclosed in ASAKA ET AL in order to produce electrophotographic materials with desirable electrical and mechanical properties.

Response to Arguments

1. Applicant's arguments filed 9/6/2005 have been fully considered but they are not persuasive.

(A) In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). MAJUMDAR ET AL discloses the use of multilayer polymer-coated paper substrates (exemplified by the multilayer sheet materials in ALYWARD ET AL) as base layers for electrophotographic imaging materials; ASAKA ET AL discloses coatings useful for producing high quality electrophotographic images; SHIKANO ET AL discloses typical stiffness values desired for electrophotographic imaging materials; and SAKAMOTO ET AL disclose a conventional conductive filler used to optimize. the electrical characteristics of imaging materials used in electrophotographic applications.

(B) Applicant argues that ASAKA fails to teach the claimed invention because the coating in the reference is applied to a transparent substrate. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, one of ordinary skill in the art would

reasonable believe that the desirable characteristics of the image-receiving coatings in ASAKA ET AL would be useful for producing high quality electrophotographic images, regardless of the transparency (or lack thereof) of the substrate material. Applicant has not provided any probative evidence to the contrary.

(C) Applicant argues that the specification provide evidence of unexpected results from the claimed invention. However, any showing provided by the specification is not commensurate in scope with the present claims (e.g., with respect to the amount and size of conductive material, the specific composition of the thermoplastic surface layers, etc.)

Conclusion

2. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vivian Chen whose telephone number is (571) 272-1506. The examiner can normally be reached on Monday through Thursday from 8:30 AM to 6 PM. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carol Chaney, can be reached on (571) 272-1284. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

The General Information telephone number for Technology Center 1700 is (571) 272-1700.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

November 23, 2005

Vivian Chen
Primary Examiner
Art Unit 1773